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NETWATCH

edited by JOCELYN KAISER

COOL IMAGES

Insects at Work

A hoverfly (*Syrphus*), one of the few fly species that digest pollen, snacks on a wild rose in this photo by nature photographer Carll Goodpasture. It appears on the Web version of Vanishing Pollinators,* a new art exhibit at the National Zoo running through April 2001. The show highlights the worrisome decline of these essential players in agriculture and nature—losses attributed to factors such as habitat loss and pesticides. The exhibit's 34 photos include stunning close-ups of bees, butterflies, leaf beetles, and predators such as spiders. Captions explain why butterflies and moths have long tongues and why bumblebees forage upward on a plant.

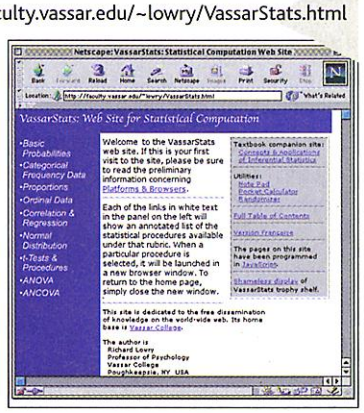
* www.si.edu/pollinators/images

SITE VISITS

Free Stats

Practically every scientist uses statistics. Pharmacologists employ regression to understand the relation between the dose of a drug and its effects in the body, while agronomists use analysis of variance to test which fertilizer makes crops grow fastest. Thanks to VassarStats, created by psychologist Richard Lowry of Vassar College in Poughkeepsie, New York, anyone can now use the most popular statistical tests to analyze their data—free of charge.

faculty.vassar.edu/~lowry/VassarStats.html



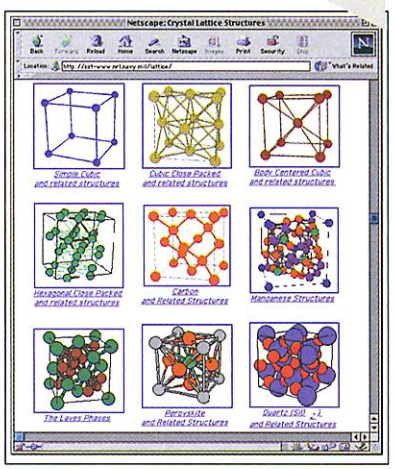
Lowry began building Internet-based stats programs back in 1988 after growing "annoyed" with the cost of commercial software. His site offers an easy-to-use statistical package with bread-and-butter procedures such as linear regression, one-way and two-way analysis of variance, and the Mann-Whitney, chi square, and *t* tests—as well as some more unusual procedures. Users can type in numbers or import data from a spreadsheet. The site also features simulations and demonstrations to teach statistical principles.

Indeed, Lowry strives to demystify the "magic rituals" behind the process. Instead of simply displaying a final *P* value—the odds of getting a significant result by chance if the experiment were repeated many times—the output includes intermediate results and offers cautions about possible misinterpretations. To find out more, novices and experts alike can page through Lowry's lucid 17-chapter Web textbook.

Crystal Clear

From ice to steel to the most exotic superconductors, the vast majority of solids are crystals deep down. And most of their properties depend directly on how atoms stack together in the regular patterns known as crystal lattices. Graphite is soft and opaque and diamond is hard and clear, for instance, because the two forms of carbon incorporate different lattices. Nature dreamt up 230 basic lattice designs, and you can see dozens of the more common and more interesting ones at Crystal Lattice Structures, a Web site maintained by the Naval Research Laboratory in Washington, D.C.

cst-www.nrl.navy.mil/lattice



The site makes a quick and easy reference for the researcher puzzling over an unfamiliar material. Vivid diagrams show each crystal structure from a variety of angles, structures are indexed in three different ways, and detailed technical information explains precisely how each lattice fits together. Annotated links point the way to more information. The site assumes terms such as "basis vector" and "space group" won't send you running for cover. But even visitors who wouldn't know a unit cell if it fell on them will get a kick out of peering at the complicated pictures.

HOT PICKS

Taking a position. Part of a Canadian bioethics project, this new site is building an international database of statements, guidelines, and reports on everything from tissue banks to gene therapy. You'll find scores of documents such as a recent Human Genome Organisation statement on DNA patents and Japanese guidelines on genetic testing at www.humgen.umontreal.ca

Filling it out. *Bio. Met., Kobe J. Med. Sci. MGG, Wildl. Monogr., Dis. Mon.:* If these and other biological journal abbreviations are driving you up the wall, flee here to look up the full names of hundreds of journals in English and other languages. arachne.prl.msu.edu/journams

Hands-on astronomy. Pacific astronomers culled the best of astronomy education sites to compile this annotated list of activities for K-12 students, from building a galaxy to using clay to explore how shadows create the face on Mars. www.aspsky.org/education/astroacts.html

Send Internet news and great Web site suggestions to netwatch@aaas.org